

***LineUp With Math™* Alignment**  
**New York SED Math Standards**

**Problem Solving Strand**

**Students will solve problems that arise in mathematics and in other contexts.**

<b>Standard</b>	<b><i>LineUp With Math™</i> Activities</b>
7.PS.6 Represent problem situations verbally, numerically, algebraically, and/or graphically	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.

**Students will apply and adapt a variety of appropriate strategies to solve problems.**

<b>Standard</b>	<b><i>LineUp With Math™</i> Activities</b>
7.PS.8 Understand how to break a complex problem into simpler parts or use a similar problem type to solve a problem	--Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts.
7.PS.10 Use proportionality to model problems.	--Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.

**Communication Strand**

**Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.**

<b>Standard</b>	<b><i>LineUp With Math™</i> Activities</b>
7.CM.4 Share organized mathematical ideas through the manipulation of objects, numerical tables, drawings, pictures, charts, graphs, tables, diagrams, models, and symbols in written and verbal form	--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.  --Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

**Connections Strand**

**Students will recognize and apply mathematics in contexts outside of mathematics.**

<b>Standard</b>	<b><i>LineUp With Math™</i> Activities</b>
7.CN.7 Apply mathematics to problem situations that develop outside of mathematics	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
7.CN.8 Investigate the presence of mathematics in careers and areas of interest.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

<b>Representation Strand</b>	
<b>Students will create and use representations to organize, record, and communicate mathematical ideas.</b>	
<b>Standard</b>  7.R.1 Use physical objects, drawings, charts, tables, graphs, symbols, equations, or objects created using technology as representations	<b><i>LineUp With Math™</i> Activities</b>  --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
<b>Students will select, apply, and translate among mathematical representations to solve problems.</b>	
<b>Standard</b>  7.R.6 Use representations to explore problem situations	<b><i>LineUp With Math™</i> Activities</b>  --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
<b>Students will use representations to model and interpret physical, social, and mathematical phenomena.</b>	
<b>Standard</b>  7.R.9 Use mathematics to show and understand physical phenomena (e.g., make and interpret scale drawings of figures or scale models of objects)	<b><i>LineUp With Math™</i> Activities</b>  --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.  --Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.